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A SKYLAB PROGRAM FOR THE INTERNATIONAL HYDROLOGICAL DECADE (IHD)

Quarterly Report for Period March 1974 – May 1974

EREP Investigation 427M
NASA Contract NAS9-13275

Prepared by

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A SKYLAB PROGRAM FOR THE INTERNATIONAL HYDROLOGICAL DECADE (IHD)

Quarterly Report for Period March 1974 – May 1974

This report covers progress during the fifth quarter (1 March through 31 May 1974) of contract NAS9-13275, "A SKYLAB Program for the International Hydrological Decade (IHD)," EREP No. 427M. The principal objective of this program is the study of various hydrological aspects (soil moisture, water currents, etc.) of portions of the Lake Ontario basin using SKYLAB and aircraft data. The work is being conducted in the Infrared and Optics Division of the Environmental Research Institute of Michigan, under the general supervision of Mr. R. R. Legault. The principal investigator is Mr. F. C. Polcyn.

PROGRESS

During this reporting period photointerpretation of the S-190A and S-190B photography from the 9 September 1973 SKYLAB pass (pass 29) over the western portion of Lake Ontario was undertaken. Circulation patterns in Lake Ontario, including longshore currents, outfalls, and plumes such as the Niagara Plume, and other flow patterns were analyzed. In addition to the examination of the existing S-190A and S-190B prints and transparencies, prints of the S-190A color (.4 - .7 μm) transparency were made using exposures which enhanced water detail.

No screening film of the S-192 data has yet been received. Information received to date indicates that although atmospheric conditions were good, striping is present in the data due to a calibration lamp inadvertently left on during data take. Our contract funds are insufficient to undertake correction of this problem. We are advised, however, that attempts will be made to supply us with computer compatible tapes containing usable data.

FUTURE PLANS

While waiting for receipt of the S-192 data, we intend to begin processing of the aircraft data associated with this investigation. Development of processing procedures and algorithms to achieve the goals of this project will be developed and tested on the aircraft data.

SPECIAL PROBLEMS

Lack of S-192 data severly limits performance.

SIGNIFICANT RESULTS

None

PUBLICATIONS

None

Respectfully submitted:

Fabian C. Polcyn
Principal Investigator

Approved by:

Richard R. Legault
Director - Infrared and Optics Division

FCP:RRL:dlc